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Rept. on agronomic phases  
of field corn varietal  
experiments. in 1935.

by L.H. Patch.

Dec. 1935.



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December 1935

REPORT ON AGRONOMIC PHASES OF FIELD CORN  
VARIETAL EXPERIMENTS IN 1935,

European Corn Borer Laboratory  
1920 Parkwood Avenue,  
Toledo, Ohio.

Division of Cereal and Forage Insects  
Bureau of Entomology and Plant Quarantine  
U. S. Department of Agriculture



## REPORT ON AGRONOMIC PHASES OF FIELD CORN VARIETAL EXPERIMENTS IN 1935

L. H. Patch, Associate Entomologist, Division of Cereal and Forage Insects, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture.

The data given in this report were obtained incidentally in connection with research on the European corn borer conducted from the laboratory at Toledo, Ohio. The seed used in this work was provided through the cooperation of various federal and state agencies and individual seedsmen. The experiments from which the data were taken were conducted cooperatively with the Bureau of Plant Industry, Division of Cereal Crops and Diseases, J. R. Holbert, Bloomington, Illinois.

In one experiment (Exp. B) 21 single crosses were planted on May 27. These were of all possible combinations of 7 inbreds as follows, Kansas Yellow Saline (KYS), L 317 B2, Woodworth's Ill. 5120, Ill. A48, Steigermeyer's Ill. 22, B.P.I. 540, and No. 617. All of these combinations were provided by J. R. Holbert. In addition 4 other single crosses and 17 double and 3-way crosses were planted in the experiment, making 42 strains in all. These were planted in six-fold replication of two- by four- hill plots. The varietal sequence within the replications was at random. Six plants in each plot were manually infested with corn borer egg masses and dissected when the borers were mature, leaving about 18 x 6 or 108 plants of each strain as a basis for yield and other agronomic records. The number of borers in the plants left for yield records were so few that they were disregarded in making comparisons between the strains.

In the other experiment (Exp. A) 12 double crosses, 2 single crosses, and 2 local varieties, Clarage and Woodburn, were planted on May 11, May 27, and June 11. This last is a late planting date for the locality but it was made necessary by the delayed germination of the May 11 planting, which did not come up until May 27 when the second planting was made. However, the June 11 planting made a crop, the percent dry matter contained in it at harvest averaging 57.4 compared with 68.6 and 65.0 percent from the May 11 and May 27 plantings, respectively. Experiment A was laid out in four-fold replication of two series of two- by eight- hill plots. The varietal sequence within these replications was at random. One series of plots was subject to natural infestation by the European corn borer, and the agronomic data from these plots are given in this report. The mean number of borers per infested and non-infested plants of this series of plots averaged 1.08, 0.59, and 0.15 for the May 11, May 27, and June 11 plantings, respectively. Since the borer populations in the different strains were low, comparisons between the strains can be made without taking into account the borer populations, excepting perhaps the local varieties, Clarage and Woodburn, which had nearly one borer more per plant in the May 11 planting than the other strains.







Growing conditions for the corn throughout the season appeared to be optimum. The first killing frost occurred October 5, or two weeks earlier than average.

#### DEFINITION OF TERMS AND COMMENTS

Planting to silking - Estimated period from planting to the mid-silking date. The individual silking dates of about 90 plants were recorded, excepting in the May 11 planting of Exp. A. where 32 plants were taken as a sample.

Lodging score - No especially strong wind occurred during the season, but the lodging data were taken at harvest. Data were taken on a plant basis. Each plant was scored, (0) if upright, (1) if leaning slightly, (2) if leaning at an angle of about 45 degrees, and (3) if flat. These scores were totalled for all the plants examined and the average plant score is given. A maximum score of 3.000 would be possible with all the plants flat.

Smuted - Plants with one or more visible smut masses on stalk or ear. Smut on leaves or tassels was ignored.

Broken - Any break in the stalk below the second node below the tassel stalk.

Earless - Plants which failed to produce continuous grain out beyond the leaf sheath. In Exp. B only 13 earless plants were noted among the 42 strains. In Exp. A only a few plants were earless, so data are not given in the tables.

Two-ear plants - An ear at each of two or more nodes. In many cases the second ear was no more than a nubbin, so the data on this point are only indicative of the tendency of the different strains to bear two ears per plant.

Rotted ears - A rotted ear was rarely noticed, so data on this point are not given.

Bare-tipped ears - Tip of ear or cob not capable of being covered by the husks at maturity.

Shelling percentage - Weight of the shelled grain divided by the weight of the ears and multiplied by 100. The mean shelling percentages of 16 strains in Exp. A planted on May 11, May 27, and June 11, were 84.3, 83.3, and 79.3, respectively. The percentage for each strain is based on 2 samples of about 8 pounds of ears.



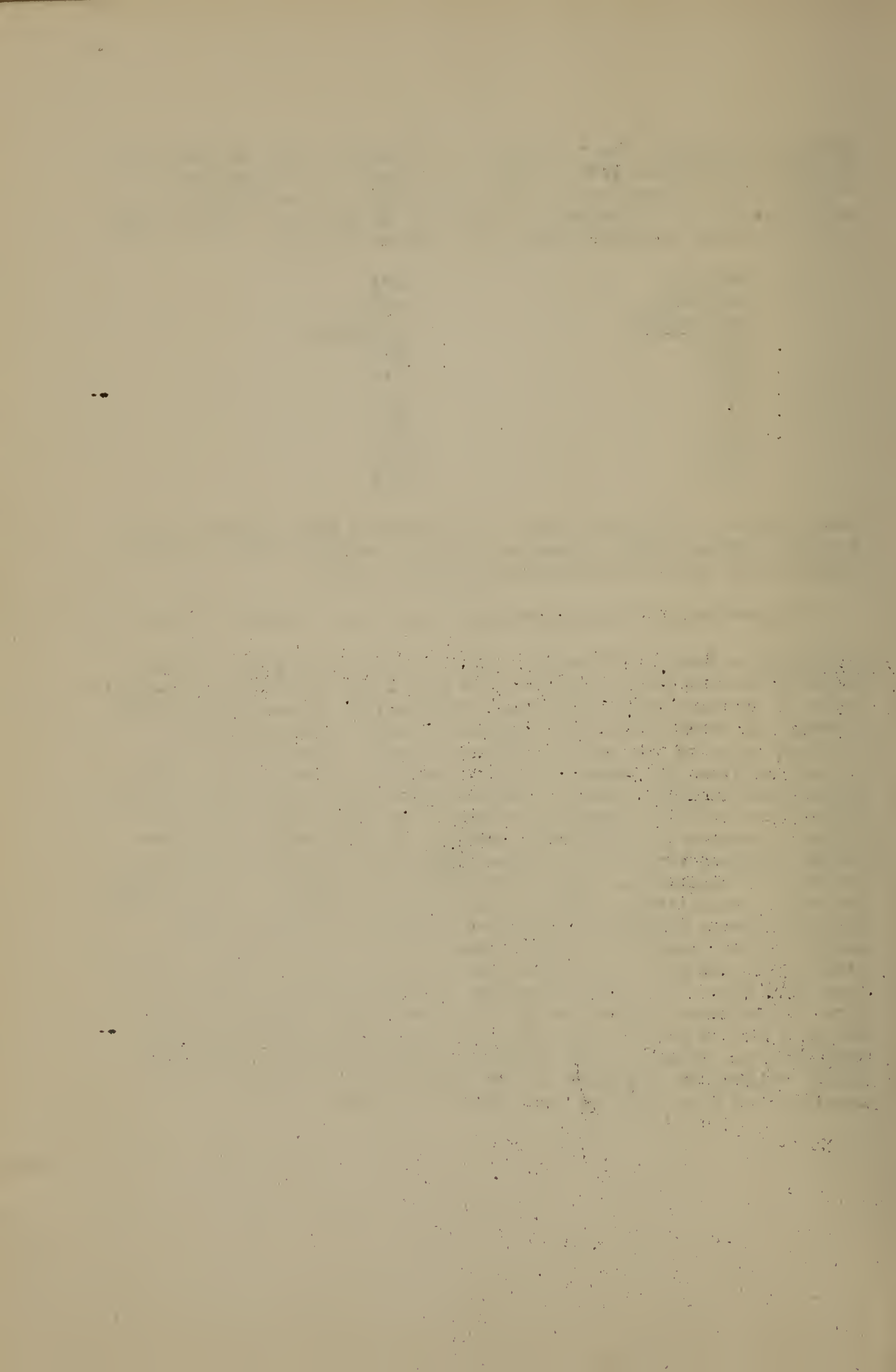
Weight per bushel - The test weight of a bushel volume as determined by standard methods. From the data from Exp. B a very definite relation was observed between the test weight per bushel and the percent moisture in the kernels at the time the test was made. The data are as follows, each value being the mean of 12 tests.

<u>Percent moisture in kernels</u>	<u>Test weight per bushel</u>
22.2	51.0
19.2	54.2
18.1	55.3
17.4	56.1
16.8	55.9
16.0	56.3
14.6	57.1

After fitting a free-hand curve to the plotted data the test weight for each strain in Exp. B was corrected according to the moisture at time of test and the data as read from the curve.

No correction of the test weight per bushel was made in Exp. A.

Acre yield - Bushels of shelled corn on an acre basis at a uniform moisture content of 15.5 percent. In Exp. B the generalized standard error of the mean yield from the 6 replications of each strain (108 plants) was found to be 2.07 bushels per acre. The generalized standard error of the mean difference in yield between two strains calculated from this value is 2.93 bushels per acre. In Exp. A the generalized standard error of the mean yield from the 4 replications of each strain (174 plants) was found to be 3.66, 2.82, and 2.17 bushels per acre for the three plantings, respectively. The generalized standard errors of the mean difference in yield between two strains calculated from these values are 5.18, 3.99, and 3.07 bushels per acre, respectively. From the generalized standard errors of the mean difference in yield between two strains given above, little weight can be placed in the differences in the yield between two strains of less than 5.3 bushels (odds of 19 to 1) in Exp. B, and of less than 10.0, 7.7, and 5.9 bushels in Exp. A, May 11, May 27, and June 11 plantings, respectively. The generalized standard error of the mean yields in the table giving the mean values for all 3 plantings, Exp. A, would be 1.70 bushels. Calculating from this value, little weight can be placed in the differences in the yield of two strains from this table of less than 4.1 bushels.





Even though the data might appear to be rather variable from these values, especially those from the May 11 planting, Exp. A, the yield data given in the table for the different strains are consistent, especially between the first and second plantings. For example, strains Nos. 3, 6, and 9 rank highest in yield in both of these plantings, and Nos. 10, 5, 4, 16, and 2 are grouped together in both plantings.

Dry matter at harvest - Two field samples of ears from each strain of approximately ten pounds each were taken at harvest from both Exp. B and Exp. A. The moisture content of the shelled corn was determined by the Federal Grain Supervisor's office at Toledo, Ohio. From these determinations the percent dry matter at harvest was calculated in the usual way. A relation was observed between the percent dry matter at harvest and the number of days from planting to silking in Exp. B. This is seen in the following pairs of values giving the days to silking and the percent dry matter, respectively: 69.2 and 61.6, 70.7 and 60.5, 72.0 and 60.5, 72.9 and 59.9, 73.6 and 59.1, 75.5 and 57.5. As the days to silking increased the percent dry matter at harvest decreased, as might be expected.



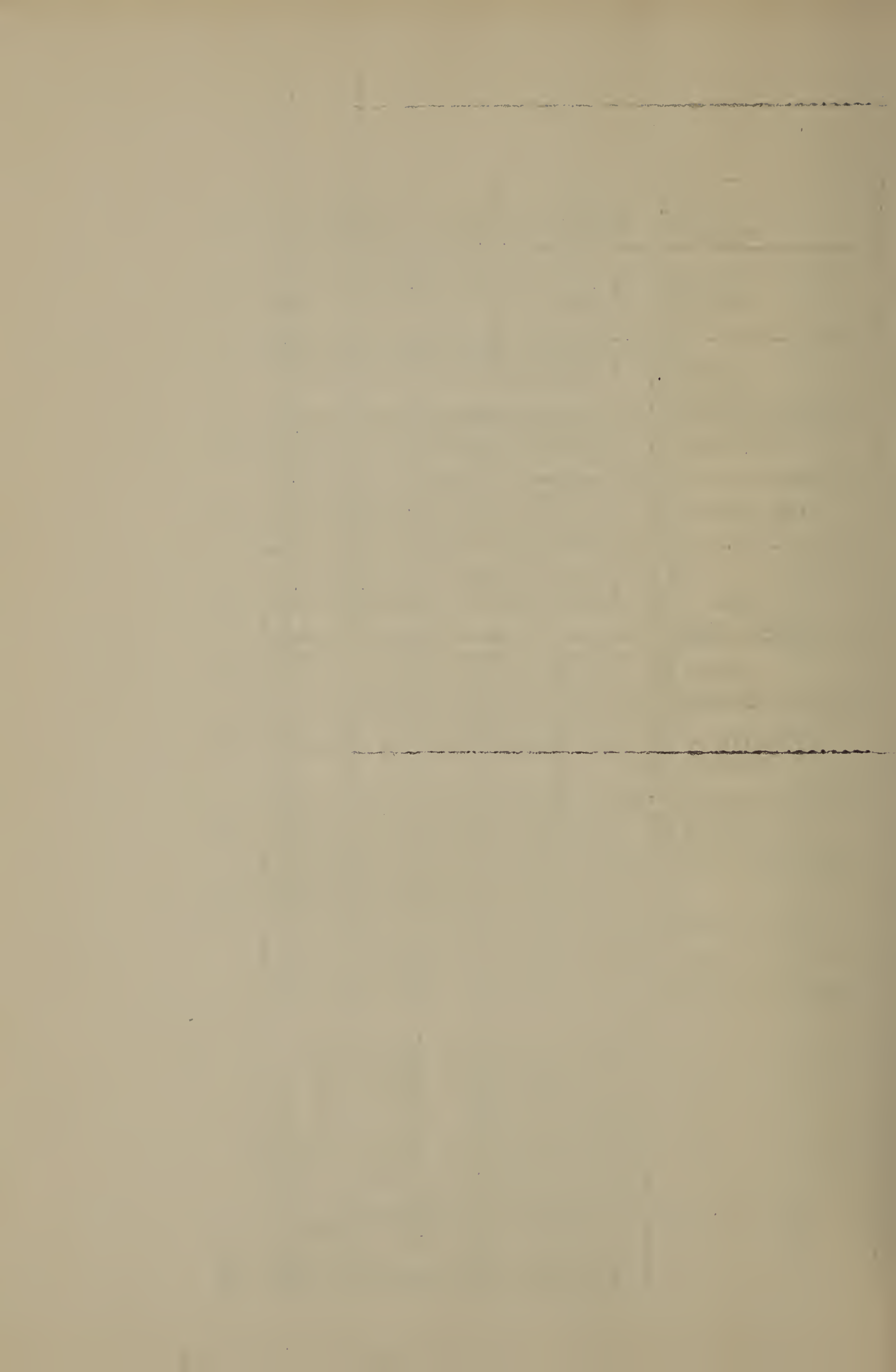
Agronomic Data from Corn Varietal Experiment - Exp. A- Planted May 11, 1935, near Toledo, Ohio.

Pedigree	Strain Field Number	Acre yield		Dry matter at harvest on October 7-12	Planting to silking Days	Two-ear plants Pct.	Bare tipped ears Pct.	Wt. per Bu.	Shelling percentage Pct.	Smutted plants Pct.	Broken plants Pct.	Lodging score Ave.
		Bu	Pct.									
(TR x 317) X (R4 x 540)	9	117.5	68.8	81.6	21.7	37.2	58.8	83.8	2.2	45.5	.095	
(R4 x Hy) X (TR x 317)	6	117.4	69.4	82.5	10.4	29.0	58.6	85.4	3.3	39.3	.066	
(R4 x Hy) X (317 x 701)	3	117.1	66.2	82.4	32.8	51.9	57.8	84.1	1.6	19.1	.011	
(TR x 317) X (540 x Hy)	10	115.5	68.2	82.2	15.2	37.0	58.8	82.9	2.2	24.7	.124	
(A48x Hy) X (317 x 701)	5	113.5	69.1	81.7	13.1	34.4	58.5	83.1	1.6	18.0	.011	
(R4 x 317) X (448 x Hy)	4	112.4	66.6	82.3	1.6	24.2	58.2	82.8	1.6	20.9	.042	
(A x Hy) X (TR x 317)	16	111.2	65.6	--	3.3	35.3	58.4	82.6	4.7	16.7	.073	
R4 x Hy	2	110.9	68.4	80.9	3.3	26.8	58.9	85.8	5.2	9.1	.000	
(A x Hy) X (R4 x 317)	15	110.2	66.9	--	3.7	8.7	59.1	84.0	1.9	13.7	.081	
A x TR	1	109.1	67.0	78.5	0.0	34.4	58.1	82.8	6.4	11.5	.229	
(TR x Hy) X (R4 x PR)	17	108.2	65.4	--	3.1	22.1	57.8	85.3	1.2	12.3	.055	
(R4 x Hy) X (90 x 317)	8	107.4	71.1	82.2	1.1	19.1	59.3	84.5	1.6	32.8	.098	
(TR x R4) X (A x Hy)	18	106.0	67.7	--	3.2	36.3	57.4	83.6	6.4	15.3	.159	
(R4 x Hy) X (A x 540)	7	105.2	68.3	82.2	18.4	24.7	58.1	83.8	4.2	16.7	.023	
Woodburn	13	94.6	72.7	76.6	0.0	12.4	57.5	87.3	5.0	27.3	.329	
Clarage (Johnson)	11	78.7	76.7	75.6	0.6	1.3	55.2	86.8	4.4	30.2	.125	
Mean		108.4	68.6	80.6	8.2	27.2	58.1	84.3	3.3	22.4	.096	



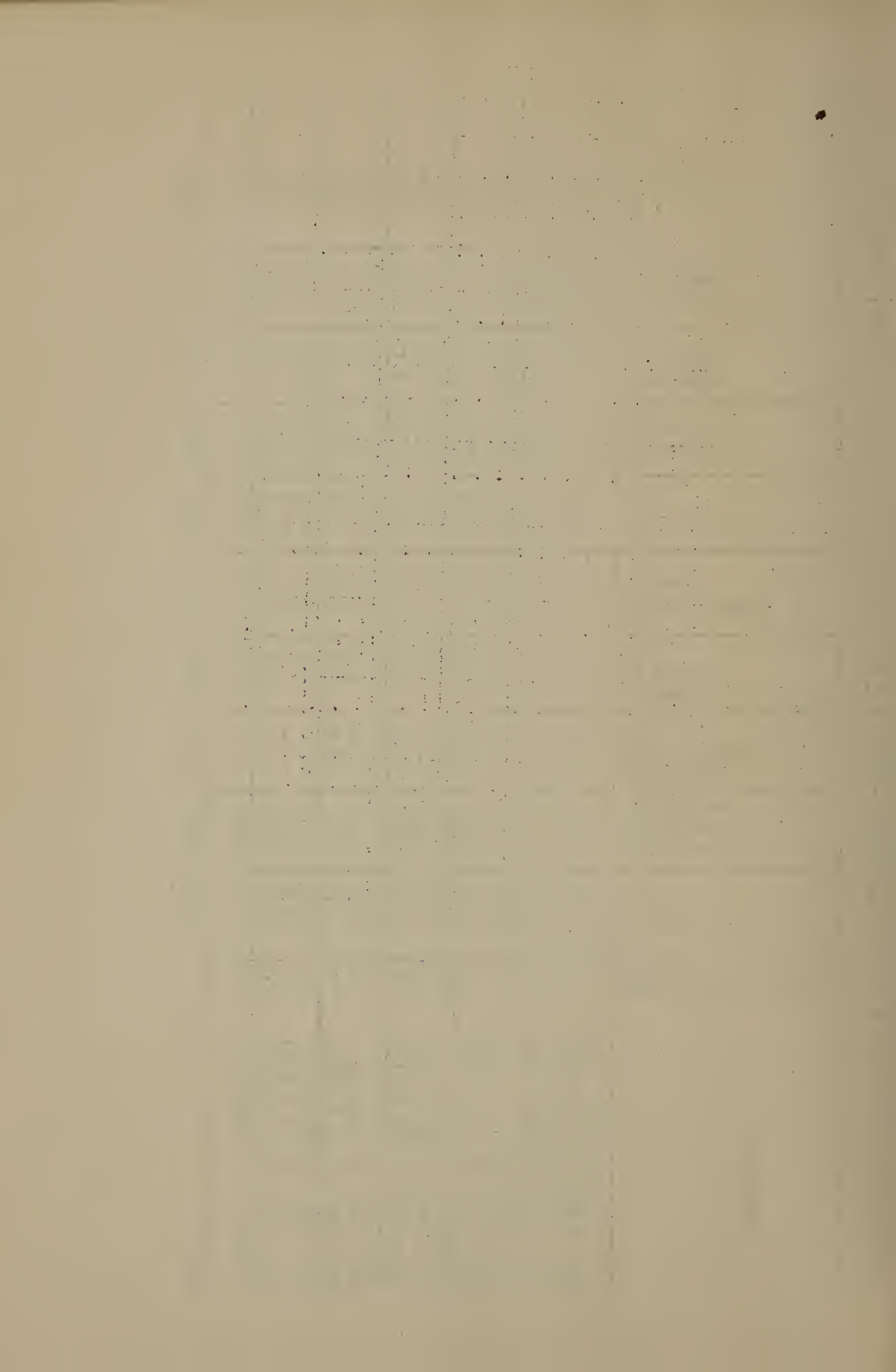


Pedigree	Strain Field Number	Acre yield		Dry matter at harvest on October 7-12	Days Planting to silking	Two-ear plants		Bare tipped ears		Wt. per Bu.	Shelling percentage		Smuted plants		Broken plants		Lodging score
		Bu.	Pct.			Pct.	Pct.	Pct.	Pct.		Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
(R4 x Hy ) X (317 x 701)	5	120.1	63.3	71.5	37.7	49.2	56.6	84.8	1.6	10.4	.022						
(TR x 317)X (R4 x 540 )	9	118.9	66.4	71.3	29.7	25.8	57.6	83.3	1.1	34.0	.088						
(R4 x Hy ) X (TR x 317 )	6	117.0	66.2	71.1	21.1	27.8	57.3	82.5	5.6	22.2	.194						
(TR x Hy ) X (R4 x PR)	17	110.7	63.2	--	9.3	21.1	55.1	84.0	4.3	8.1	.174						
(R4 x Hy ) X (90 x 317)	8	110.5	66.7	70.6	5.1	14.2	57.7	83.0	4.0	26.7	.017						
(TR x 317)X (540x Hy )	10	109.8	66.5	71.0	11.0	30.2	58.1	81.7	2.7	19.2	.121						
{A48x Hy }X (317x 701)	5	109.4	65.2	70.4	25.1	27.3	58.0	83.2	1.6	9.8	.022						
(R4 x 317)X (A48 x Hy )	4	109.2	61.9	71.4	7.1	17.5	57.6	83.2	2.2	11.5	.044						
R4 x Hy	2	108.6	63.0	70.4	4.1	11.6	57.3	83.6	5.8	4.6	.000						
(A x Hy ) X (TR x 317)	16	108.5	62.9	--	4.9	33.7	56.9	81.8	4.3	9.8	.215						
(R4 x Hy ) X (A x 540)	7	107.4	66.2	70.6	29.0	20.8	56.9	83.8	2.7	10.4	.005						
(TR x R4) X (A x Hy )	18	106.8	64.4	--	8.1	41.0	57.2	83.0	3.1	8.1	.223						
A x TR	1	105.8	64.2	68.3	1.6	52.0	57.3	81.7	6.0	6.0	.264						
(A x Hy ) X (R4 x 317)	15	101.5	63.8	--	8.5	7.9	58.0	82.0	1.8	8.5	.079						
Woodburn (East)	13	93.0	68.9	67.0	1.2	10.8	57.0	84.9	6.6	18.7	.084						
Clarage (Johnson)	11	78.4	68.5	64.6	0.6	0.6	57.2	86.1	5.9	23.1	.136						
Mean		107.2	65.0	69.8	12.8	24.5	57.2	83.3	3.7	14.4	.106						



Agronomic Data from Corn Varietal Experiment - Exp. A - Planted June 11, 1935, near Toledo, Ohio.

Pedigree	Strain Field Number	Acro yield		Dry matter at harvest on October 7 - 12	Days to silking	Two-ear plants	Bare tipped ears	Wt. per Bu.	Shelling percentage	Smutted plants	Broken plants	Lodging score
		Bu.	Pct.									
(A48 x Hy) X (317 x 701)	5	97.2	58.6	62.6	29.9	31.7	53.9	79.5	3.3	13.9	.028	
(R4 x Hy) X (317 x 701)	3	93.6	54.4	62.9	39.1	41.3	52.8	80.3	1.1	12.3	.050	
(TR x 317) X (540 x Hy)	10	92.9	58.8	63.3	11.8	29.8	55.4	79.3	1.7	19.7	.056	
R 4 x Hy	2	91.3	56.2	62.0	2.8	10.2	53.4	80.8	3.4	2.3	.011	
(TRx 317) X (R4 x 540)	9	90.7	56.7	63.2	29.2	19.1	52.7	79.0	2.8	37.6	.056	
(R 4 x Hy) X (90 x 317)	8	88.6	59.9	63.2	5.5	5.5	54.4	79.4	1.7	14.4	.011	
Woodburn (Mast)	13	87.5	61.3	58.9	1.3	6.3	54.9	84.3	9.4	15.7	.151	
(A x Hy) X (R4 x 317)	15	87.4	54.3	--	5.2	7.8	51.8	78.0	1.3	7.1	.169	
(R4 x Hy) X (TR x 317)	6	87.3	57.7	63.3	10.8	22.7	50.0	77.8	1.7	21.0	.096	
A x TR	1	85.3	57.2	60.7	0.6	39.0	54.5	77.7	5.6	0.0	.044	
(R4 x 317) X (A48x Hy)	4	85.2	53.5	63.2	7.2	18.3	49.8	75.7	1.1	15.6	.089	
(R4 x Hy) X (A x 540)	7	85.1	57.7	62.9	13.6	10.7	51.9	79.6	2.8	6.2	.045	
(TR x Hy) X (R4 x FR)	17	84.6	54.7	--	3.1	12.3	49.1	79.6	1.2	4.3	.049	
(A x Hy) X (TR x 317)	16	84.3	55.6	--	3.1	28.0	51.2	76.3	3.7	3.1	.137	
(TR x R4) X (A x Hy)	18	84.2	55.3	--	3.1	36.2	52.7	78.6	2.5	5.5	.184	
Clarage (Johnson)	11	78.0	66.4	56.6	3.0	0.6	56.1	83.4	9.0	21.1	.042	
Mean		87.8	57.4	61.9	10.5	20.0	52.8	79.3	3.3	12.5	.076	

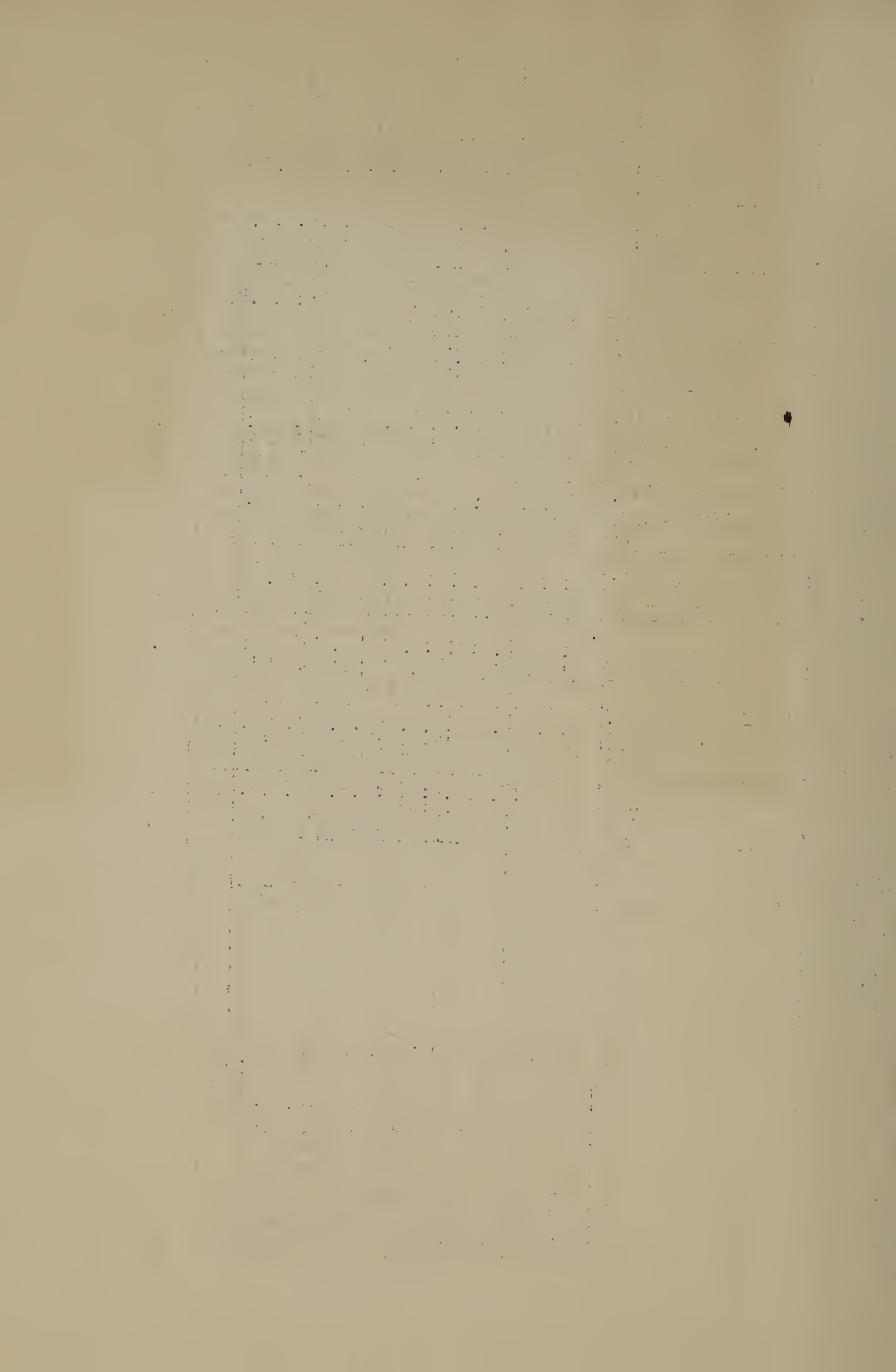




Agro-nomic Data from Corn Varietal Experiment- Exp. A -Mean of the Values from Plantings made on May 11, May 27, and June 11, 1935, near Toledo, Ohio.

Pedigree	Strain Field No.	Acre yield		Dry matter at harvest on October 7 - 12		Plantings to silking		Two-ear plants		Bare tipped ears		Wt. per Bu.		Shelling percentage		Smutted plants		Broken plants		Lodging score	
		Bu.	Pct.	Lays	Pct.	Pct.	Pct.	Pct.	Pct.	Lbs.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Ave.			
(R4 x Hy) X (317 x 701)	3	110.3	61.3	72.3	36.5	47.5	55.7	83.1	1.4	13.9	.028										
(TR x 317) X(R4 x 540)	9	109.0	64.0	72.0	26.9	27.4	56.4	82.0	2.0	39.0	.080										
(R4 x Hy ) X(TR x 317)	6	107.2	64.4	72.3	14.1	26.5	55.3	81.9	3.5	27.5	.119										
(A48x Hy ) X(317x 701)	5	106.7	64.3	71.6	22.4	31.1	56.8	81.9	2.2	13.9	.020										
(TR x 317) X(540x Hy )	10	106.1	64.5	72.2	12.7	32.3	57.4	81.3	2.2	21.2	.100										
R4 x Hy	2	103.6	62.5	71.1	3.4	16.2	56.5	83.4	4.8	5.3	.004										
(R4 x 317) X(A48x Hy)	4	102.3	60.7	72.3	5.3	20.0	55.2	80.6	1.6	16.0	.061										
(R4 x Hy ) X(90 x 317)	8	102.2	65.9	72.0	3.9	12.9	57.1	82.3	2.4	24.6	.042										
(A x Hy ) X(TR x 317)	16	101.3	61.4	--	3.8	32.3	55.5	80.2	4.2	9.9	.142										
(TR x Hy ) X(R4 x PR )	17	101.2	61.1	--	5.2	18.5	54.0	83.0	2.2	8.2	.093										
A x TR	1	100.1	62.8	69.2	0.7	41.8	56.6	80.7	6.0	5.8	.179										
(A x Hy ) X(R4 x 317)	15	99.7	61.7	--	5.8	8.1	56.3	81.3	1.7	9.8	.110										
(R4 x Hy ) X(A x 540)	7	99.2	64.1	71.9	20.3	16.7	55.6	82.4	3.2	11.1	.024										
(TR x R4 ) X(A x Hy )	18	99.0	62.5	--	4.8	37.8	55.8	81.7	4.0	9.6	.189										
Woodburn (Mast)	13	91.7	67.6	67.5	0.8	9.8	56.5	85.5	7.0	20.6	.188										
Clarage (Johnson)	11	78.4	70.5	64.9	1.4	0.8	56.2	85.4	6.4	26.8	.101										

Mean 101.1 63.7 70.8 10.5 23.9 56.0 82.3 3.4 16.4 .093





Agronomic Data from Corn Varietal Experiment- Exp.3- Planted May 27, 1935,  
near Toledo, Ohio.

Pedigree		Acre yield	Dry matter at harvest on Oct.3	Planting to silking	Two-ear plants	Bare tipped ears	Wt. per Bu. 17.7 percent H <sub>2</sub> O	Shelling percentage	Squatted plants	Broken plants	Lodging score
(The pedigree is given irre- spective of the way the crosses were actually made)		Bu.	Pct.	Days	Pct.	Pct	Lbs.	Pct.	Pct.	Pct.	Ave.
Hy and R4											
in combination with											
	PR and TR	105.4	59.4	71.7	3.7	30.3	54.1	82.2	0.9	8.3	.312
	WF9 and TR	114.0	60.4	70.7	1.9	52.8	55.2	81.2	0.9	8.5	.292
	66 and TR	104.7	60.3	70.6	2.8	27.8	55.1	82.4	3.7	14.8	.130
	A and TR	106.5	61.3	70.1	2.8	50.9	56.4	81.9	0.0	7.5	.368
	A and 317	106.0	61.0	71.4	5.7	12.3	56.7	81.1	3.8	9.4	.160
	R4 and 317	101.2	59.5	72.7	26.7	20.0	55.3	81.1	1.0	17.1	.095
	Kansas YS	91.8	53.1	77.4	4.6	22.2	52.8	77.7	2.8	4.6	.019
Hy x R4 as a single cross		101.6	61.3	70.8	2.9	15.2	55.9	82.0	6.7	6.7	.076
R4 x Ohio 20 crossed with											
	Ohio 51 X TR	103.5	61.8	69.8	15.6	14.7	55.6	85.3	2.8	13.8	.266
	Ohio 56 X Ohio 61	100.5	60.9	69.4	8.5	9.4	54.8	83.4	0.9	10.4	.510
	Ohio 61 X Ohio 73	107.6	61.2	69.5	1.9	7.5	52.9	83.6	4.7	8.4	.411
Ohio 20 X Ohio 32 crossed with											
	inbreds Ohio 56	98.2	59.4	69.2	12.4	31.4	55.2	83.4	1.0	7.6	.343
	Ohio 65	93.4	63.0	67.9	1.9	9.5	56.2	82.8	0.0	4.8	.000
	Ohio 84	99.0	62.1	67.6	0.0	34.5	54.1	84.8	4.7	8.4	.092
	R4	111.7	62.6	70.3	9.5	11.4	54.4	85.1	1.9	7.6	.286
66 X TR crossed with											
	WF9 X Hy	100.4	59.2	70.0	0.0	30.5	55.4	82.7	5.6	6.5	.092
	R4 X Hy	104.7	60.3	70.0	2.8	27.8	55.1	82.4	3.7	14.8	.130
	R4 X Ill.K	93.4	60.6	70.2	2.8	31.8	54.8	82.1	2.8	9.3	.159
A X Hy crossed with											
	R4 X 317	106.0	61.0	71.4	5.7	12.3	56.7	81.1	3.8	9.4	.160
	R4 X TR	106.5	61.3	70.1	2.8	50.9	56.4	81.9	0.0	7.5	.368
	317 X TR	104.8	60.5	71.5	4.6	55.9	58.0	80.0	1.9	8.3	.250
Miscellaneous single crosses											
	R4 X KYS	100.0	52.1	76.2	18.9	27.0	50.3	78.0	2.7	8.1	.117
	A X TR	104.8	61.6	68.5	0.0	69.7	55.6	80.4	1.8	9.2	.816
	617 X KYS	77.5	53.4	79.7	7.3	1.8	55.3	73.4	26.6	3.7	.000
	617 X A48	97.8	60.4	72.2	0.9	14.2	56.4	82.0	16.0	6.6	.076
	617 X 317	108.8	59.8	73.0	2.9	18.6	57.3	81.2	3.9	9.8	.010
Double cross Iowa No. 13		109.1	60.7	71.1	1.9	64.8	55.0	83.9	0.0	4.6	.148
L 317 B2 crossed with inbreds											
	ITE 701	116.5	59.1	72.6	66.3	12.4	55.9	82.2	0.0	3.4	.000
	St 22	116.0	59.2	72.5	6.5	50.0	56.0	80.6	2.8	11.1	.037
	A 48	109.2	61.2	73.9	10.8	68.7	57.6	81.1	0.0	16.7	.432
(ears especially uniform) Ill.											
	5120	111.6	58.4	73.6	0.0	29.6	55.8	79.0	0.0	31.5	.074
	KYS	103.4	54.8	77.8	6.9	57.5	56.6	75.3	3.5	13.8	.345
540 or ITE 701 crossed with											
	inbreds St 22	116.5	63.4	71.0	51.9	26.6	55.0	83.2	1.3	19.0	.052
	A 48	116.8	60.9	70.7	46.7	12.1	55.5	83.9	2.8	10.3	.065
	Ill. 5120	107.6	59.0	71.6	9.4	18.9	53.9	82.5	0.0	5.7	.010
	KYS	94.5	54.6	77.5	35.9	61.1	52.2	79.3	0.0	3.9	.040
St. 22 crossed with inbreds A48		96.0	61.5	71.0	2.8	12.3	55.9	80.5	1.9	17.9	.340
	Ill. 5120	99.4	63.4	72.0	1.9	12.3	56.8	77.8	2.8	11.3	.340
	KYS	107.7	59.9	73.6	1.9	29.0	55.1	80.0	0.9	9.3	.019
A48 crossed with inbreds											
	Ill. 5120	101.8	62.5	72.1	2.0	14.8	56.3	78.3	1.0	14.8	.208
	KYS	92.1	55.5	77.1	1.9	50.0	53.8	76.5	0.0	1.9	.491
Ill.5120 crossed with inbred KYS		86.0	57.0	78.7	0.0	9.3	52.1	69.6	0.0	26.2	.047
Average values of 5 single crosses											
	involving inbred L 317 B2	111.3	58.5	74.1	18.1	43.6	56.4	79.8	1.3	15.3	.178
	" either 540 or ITE701	110.4	59.4	72.7	42.0	26.2	54.5	82.4	0.8	8.5	.035
	" inbred St 22	107.1	61.5	72.0	13.0	26.0	55.8	80.4	1.9	13.7	.157
	" inbred A 48	103.2	60.3	73.0	12.8	31.6	55.8	80.1	1.1	12.3	.307
	" inbred Ill. 5120	101.3	60.1	73.6	2.7	17.0	55.0	77.4	0.8	17.9	.136
	" inbred KYS	96.7	56.4	76.9	9.3	41.4	53.9	76.1	0.9	11.0	.190
Mean of 39 single, double, and 3-way crosses		103.0	59.7	72.1	9.9	29.0	55.2	80.8	2.9	10.3	.193





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